

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

RECEIVED

SEP 29 2010

Farmington Field Office
Bureau of Land Management

Sundry Notices and Reports on Wells

- | | |
|--|---|
| 1. Type of Well
GAS | 5. Lease Number
SF-079047 |
| 2. Name of Operator
CONOCOPHILLIPS COMPANY | 6. If Indian, All. or
Tribe Name |
| 3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499 (505) 326-9700 | 7. Unit Agreement Name
San Juan 32-8 Unit |
| 4. Location of Well, Footage, Sec., T, R, M

Surface: Unit E (SWNW), 1762' FNL & 708' FWL, Section 14, T31N, R8W, NMPM | 8. Well Name & Number
San Juan 32-8 Unit 303 |
| | 9. API Well No.

30-045-28703 |
| | 10. Field and Pool
Morris Entrada |
| | 11. County and State
San Juan, NM |

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission	Type of Action			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans	<input checked="" type="checkbox"/> Other -	<input type="checkbox"/> Step rate test
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction		
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging	<input type="checkbox"/> Non-Routine Fracturing		
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut off		
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection		

13. Describe Proposed or Completed Operations

ConocoPhillips would like to perform a Step Rate Test on this SWD per attached procedures and wellbore schematic.

RCVD NOV 4 '10

OIL CONS. DIV.

DIST. 3

14. I hereby certify that the foregoing is true and correct.Signed Rhonda Rogers Rhonda Rogers Title Staff. Regulatory Technician Date 9/28/10

(This space for Federal or State Office use)

APPROVED BY _____ Title _____ Date _____

CONDITION OF APPROVAL, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

* SEE CHANGES IN PROCEDURE AND ATTACHED
GUIDELINES FOR CONDUCTING STEP RATE TESTSNotify NMOCD
prior to beginning
operations

ACCEPTED FOR RECORD

OCT 01 2010

FARMINGTON FIELD OFFICE

By SR

OPERATOR

San Juan 32-8 #303 SWD
API 3004528703
Unit E, 1762' FNL, 708' FWL, Section 14, T31N-R8W
San Juan County, New Mexico

Step Rate Test Procedure

Background: This test is being conducted to provide documentation to the NMOCD that the original maximum permitted injection pressure of 2,750 psig does not exceed the formation fracture pressure. The original step rate test conducted on September 15, 1992 did not achieve fracture pressure. Due to pressure limitations of the wellhead equipment (3,000 psig), it is expected that fracture pressure will again not be reached.

Pre test preparations:

1. Shut down injection operations at least 24 hours prior to commencement of test. Enough shut in time is required to ensure the wellhead pressures are stabilized.
2. Contact Phoenix wireline at least 48 hours prior to the test to make sure the pressure gauges are calibrated.
3. Set 3 – 400 barrel frac tanks on location. Tanks need to be cleaned and rinsed prior to filling with injection water.
4. Transfer 1,200 barrels of filtered production water from the San Juan 32-8 #301 SWD well to the frac tanks.

Test Procedure:

1. Conduct pre-job safety meeting. Adhere to and comply with all COP HSE safety policies.
2. MOL with slickline and pumping service equipment.
3. Close master valve and RU a 5,000 psig rated slickline lubricator to the ERC master valve. RU pump lines to the offside (opposite the wing valve) port on the tubing head cross.
4. RU pressure recorders on the tubing, casing and bradenhead. The pumping service will provide a continuous plot of injection rate versus pressure to determine the breakover pressure (if reached).
5. RIH with tandem pressure recorders to the top perforations at 8,510'. Secure slickline and have personnel standby for the duration of the test.
6. Test all lines and lubricator to 3,000 psig.
7. Note the initial shut in pressures on the tubing, casing and bradenhead. Continue to record these pressures at each rate change. The test will be discontinued if

the casing pressure shows a substantial increase or if the bradenhead pressure increases any amount above its starting pressure.

*

8. Commence the step rate test with an initial pump rate of $\frac{1}{4}$ bpm with filtered water. Hold this rate and all subsequent rates for 15 minutes OR until the rate is stable. The onsite engineer will make this determination. The rates (in bpm) will increase as follows or as specified by the onsite engineer $\frac{1}{2}$, 1, 2, 3, 4, 5, 6, 7, 8 etc. until a surface pressure of 3,000 psig is reached or all of the fluid has been pumped. RATES AND TIME MUST BE THE SAME FOR ALL STEPS - RATE CHANGES WILL BE $\frac{1}{2}$ BPM OR SMALLER.
9. Shut down pumps and record ISIP for 15 minutes.
10. RD pumping service lines and equipment.
11. Pull downhole pressure gauges and RD slickline equipment.
12. Re-establish injection operations.

Contacts

BJ Services:

Michelle Huskey 327-6222 (office) (501) 593-9867 (cell)

Phoenix Wireline:

Jeff Williams 325-1125 (office) 793-1101 (cell)

ConocoPhillips:

Doug Mussett (Engineering)	599-4067 (office)	320-2483 (cell)
Robert Stuard (Operations)	326-9708 (office)	215-4713 (cell)

San Juan 32-8 #303 SWD

Treatment History

This SWD well was originally fracture stimulated in three stages from **August 29 to September 5, 1992:**

First Stage:

Fracture treated the Entrada formation perforations (9,074-9,210 ft) with 146,200 gallons of 40# cross-linked gel and 305,270# 20/40 sand in 1-12 ppg stages. Average treating rate – 80 bpm, maximum treating pressure – 4,960 psig, ISIP – 1,925 psig.

Second Stage:

Fracture treated the Bluff formation perforations (8,860-8,930 ft) with 102,100 gallons of 40# cross-linked gel and 215,000# 20/40 sand in 1-12 ppg stages. Average treating rate – 60 bpm, maximum treating pressure – 4,340 psig, ISIP – 2,330 psig.

Third Stage:

Fracture treated the Morrison formation perforations (8,510-8,782 ft) with 158,000 gallons of 40# cross-linked gel and 342,000# 20/40 sand in 1-12 ppg stages. Average treating rate – 60 bpm, maximum treating pressure – 2,431 psig, ISIP – 2,600 psig.

September 15, 1992: A step rate test was performed at completion after fracture treating the injection zones as follows:

Rate, bpm	Step Volume, bbls.	Cumulative Volume, bbls.	Pressure, psig
0.5	10	10	225
1	25.5	35.5	300
2	52	87.5	520
3	67.5	155	770
4	93	248	1,220
5	166	414	1,730
6	145	559	2,300
7	94	653	2,750
8	389	1,042	3,430
0	0	1,042	1,160 (ISIP)

May 3, 1996: Treat well with 275 gallons xylene and 1,810# isopropanol alcohol. Max. treating pressure – 3,100 psig, average treating pressure – 2,800 psig, average treating rate – 3.8 bpm, ISIP – 2,200 psig.

April 4, 2001: Treat well with 5,000 gallons 7 ½% HCl acid. Spot acid at 10.9 bpm and 4,370 psig. Displace with 200 barrels 2% KCl water at 3 bpm and 4,370 psig. ISIP – 2,350 psig.

Schematic - Current
SAN JUAN 32-8 UNIT #303 SWD

Most Recent Job

Job Category:

OTHER

Primary Job Type

WELL SERVICE

Secondary Job Type

Restore annulus integrity

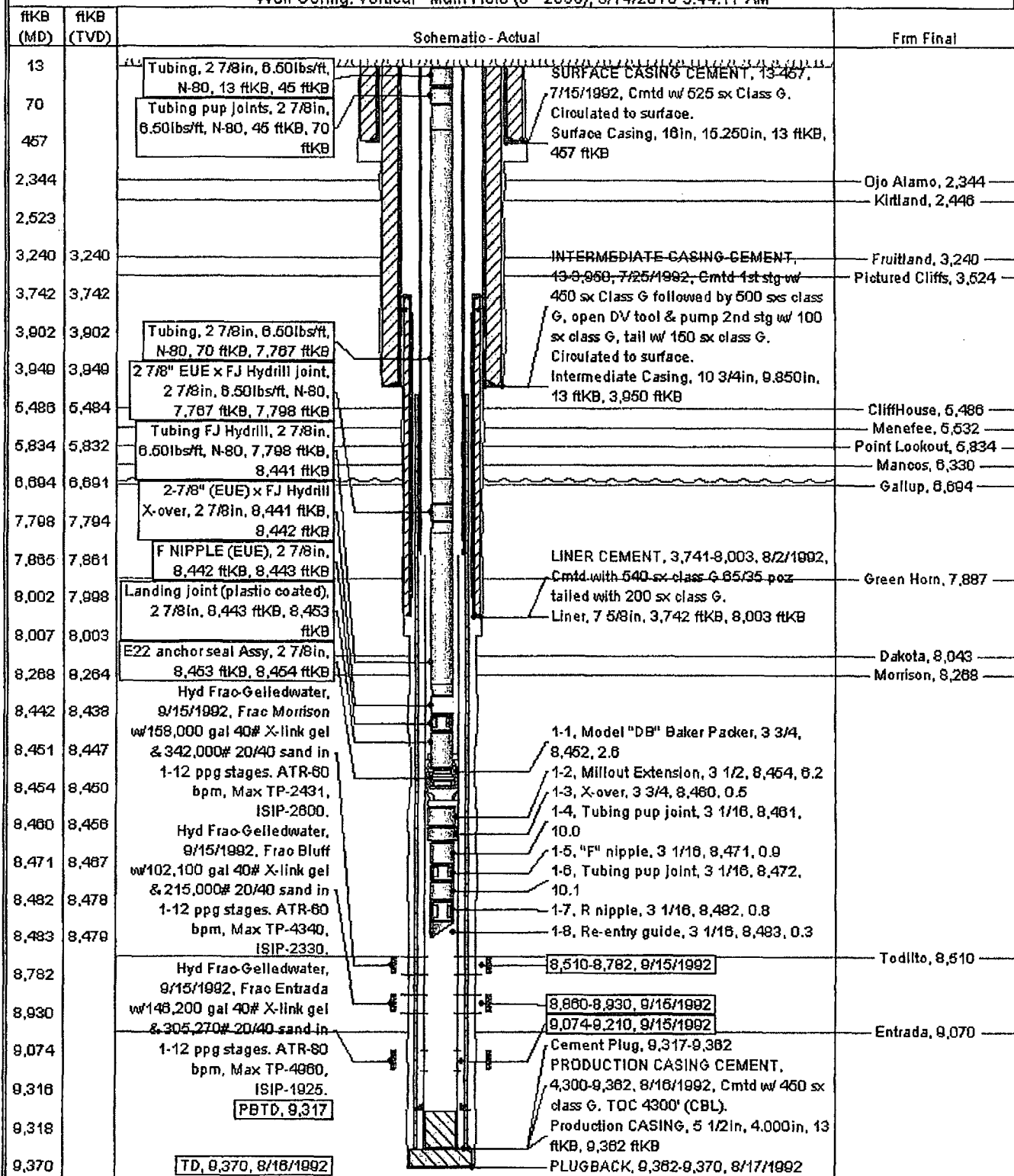
Actual Start Date

12/11/2002

End Date

Edit

Well Config: Vertical - Main Hole (0 - 2856), 9/14/2010 9:44:17 AM



Guidelines for conducting step-rate tests

The operator must submit a written procedure and rig-up diagram to the OCD at least 24 hours before starting the test. The procedure will contain the following information:

- A description of the mechanical configuration of the well.
- The history of injection pressures and volumes.
- The history of any fracture treatments and pressures especially ISIP.

A bottom hole pressure recorder will be required for wells deeper than 2000' and injection rates greater than 1 BPM.

A pressure gauge and recorder of the appropriate range will be used during the test.

Wells currently injecting must be shut-in at least 24 hours before the test unless the shut-in pressures indicate that the well has not adequately stabilized and a longer time is necessary.

Starting pump rates and pressures must be lower than the current rates and pressures if the well is currently injecting and there must be at least 3 steps below the .2psi/ft gradient and 3 steps above the break-over point.

Pumping equipment must be able to pump at the rates and pressures needed for the test.

Rate changes will be .5bpm or smaller unless the OCD witness determines that bigger rate changes are necessary due to small incremental increases in pressure.

Each step will be at least 15 minutes in duration unless otherwise determined by the OCD. Step duration must not be changed during the test.

The operator must have enough water on hand for the test.

The casing and bradenhead pressures will be monitored during the test.

All wellhead equipment must be rated for the anticipated pressures.